

RECEIVED <sup>PATENT</sup>  
APR - 8 2004  
TECHNOLOGY CENTER 3700

IN THE SPECIFICATION:

Please make the following five changes to the specification. No new matter has been added thereby.

- (1) Kindly replace the title with the following new title:

--RADIALLY EXPANDABLE STENT--

- (2) Kindly delete the paragraph on page 19, lines 7-21 and insert the following new paragraph:

Graft body section or tubular structure 13 and its associated components may be made from a variety of suitable materials, including ultra high molecular weight polyethylene, polyesters, and the like. As previously discussed, we have found constructing graft body section 13 primarily from one or more layers of ePTFE to be particularly useful. Details of how graft 10 may be fabricated (as well as all of the other grafts discussed herein) are more fully described in copending U.S. Patent Application Serial Nos. 10/029,570, 10/029,584, and 10/029,557 each to Chobotov et al. In addition, U.S. Patent Application Serial No. 09/133,978 to Chobotov, filed February 9, 1998 and entitled "Endovascular Graft" (now U.S. Patent 6,395,019) and copending U.S. Patent Application Serial No. 09/917,371 to Chobotov et al., filed July 27, 2001 and entitled "Bifurcated Stent-Graft Delivery System and Method", (now U.S. Patent 6,132,457) the entirety of each of which are hereby incorporated herein by reference, teach a useful endovascular stent-graft and delivery system, respectively.

- (3) Kindly delete the paragraph on page 32, lines 14-18 and insert the following new paragraph:

As illustrated in FIGS. 4-5 and 6-7, two-stage proximal stent 70 has a proximal end 76 and a distal end 77 with proximal stent connector elements 72. Proximal stent connector

elements 72 have opposing shoulder portions 78 that may mirror opposing shoulder portions 84 of proximal connector member connector elements 62.

(4) and (5) Applicants noted that there were inconsistencies between some of the originally filed paragraphs and the paragraph that were published (Pub. No. US 2003/0120331 A1). The following corrections correct the paragraphs in the published application back to the content in the originally filed application. No new matter has been added.

(4) Kindly delete the paragraph on page 26, lines 7-20 (corresponds to ¶ 0078 in the published application) and insert the following new paragraph:

As shown in their free expanded configuration in FIG. 1 and as shown in greater detail in FIG. 1A, barbs 43 may be oriented in a distal direction and form an elevation angle  $\beta$  ranging from about 10 to about 45 degrees or higher with respect to a longitudinal axis 29 of strut 41, projecting generally radially outward from graft lumen 22 away from proximal neck inlet axis 27. Disposing barbs at angle  $\beta$  provides the necessary embedding force to anchor graft 10 into the vessel or lumen in which it is deployed. Although not shown in the figures, the barb elevation may also be described when the graft 10 is deployed *in vivo* in a body lumen or vessel by a second angle  $\beta'$  measured relative to proximal neck inlet axis 27. This second barb elevation angle  $\beta'$  will typically range from about 5 to about 45 degrees. For both barb elevation angles  $\beta$  and  $\beta'$ , similar orientations may be found with barbs in other embodiments of the present invention.

(5) Kindly delete the paragraph on page 26, line 21 to page 27 line 16 (corresponds to ¶ 0079 in the published application) and insert the following new paragraph:

It is generally desirable that barbs 43 be oriented in a position generally parallel to the axis of the lumen in which they are deployed so that they are in a position to best resist the drag loads imposed by the flow field *in vivo* in certain applications. To this end, we have found it useful for one or more of barbs 43 to form an optional second barb azimuth or “kick” angle  $\gamma$  with respect to strut longitudinal axis 29 as shown in FIG. 1B. In this view, barb 43 is laterally biased in a plane that is tangent to an outside surface 37 of strut 41 and generally orthogonal to a plane in which angle  $\gamma$  is formed. The term “strut outside surface 37” generally refers to that portion of the surface of strut 41 located opposite the proximal neck inlet axis 27, or that portion of strut 41 that when deployed will be in direct contact with the vessel or lumen wall. We have also found that providing lateral kick angle  $\gamma$  to barbs 43 contributes to greater barb stability when the barb is tucked behind an adjacent strut or tuck pad in a reduced diameter delivery configuration. In proximal stent 40,  $\gamma$  may range from between about 5 and about 70 degrees relative to strut axis 41. Similar orientations may be found with barbs in other embodiments of the present invention.